Abstract of the Disclosure

An optical performance monitor for measuring the performance of optical networks has an echelle grating for demultiplexing an input beam into a plurality of wavelengths that are focused onto an array of divided output waveguides. Each divided output waveguide is positioned to receive a corresponding demultiplexed wavelength from the echelle grating or other waveguide multiplexer device. The divided output waveguides laterally separate the corresponding demultiplexed wavelength into a first and second portions. A detector array is positioned to receive the respective portions of the demultiplexed wavelengths and by comparing their relative intensity it is possible to detect any drift in the nominal wavelengths of the channels.